AN OBSERVATIONAL STUDY TO DETERMINE WHETHER UNCOMPLICATED PHACOEMULSIFICATION IS A PROTECTIVE FACTOR IN SUBJECTS WITH WITH PRIMARY NARROW ANGLE

ABSTRACT

AIMS

To study the reduction in Intraocular pressure (IOP) by applanation tonometry and change in angle morphology by ultrasound biomicroscopy after uncomplicated phacoemulsification surgery.

OBJECTIVES

To assess whether uncomplicated phacoemulsification reduces the risk of progression of angle closure by opening the angle

METHODOLOGY

This is a Prospective observational study conducted for a period of 6 months in Department of Ophthalmology, Government Rajaji Hospital, Madurai. 50 patients withAge 40-70years having visually significant cataract with IOP between 16-24 mmhg were taken. AndExcluding the patients with secondary / complicated cataract, &co existent corneal pathology / retinal pathology.Patients complete history and examinations likeslit lamp examination , gonioscopy. Corrected IOP, fields & fundus were done. Based on angle structures, patients are categorised into two groups. Group A: subjects with open angle, Group B: subjects withprimary narrow angle. IOP and angle morphology by UBM were assessed before and after phacoemulsification.Thedatas wereanalyzed with SPSS statistical software package.

SUMMARY OF RESULTS

Out of 50 patients 25 in group A and 25 in group B.There was almost an equal number of male:male and female:female between two groups. In my study IOP reduction was significant in both groups, but the reduction was more in narrow angle patients. (20.48±2.58 to 18.32 ±1.6 vs of 20.8±2.34 to 16.08 ±1.03). Similarly the angle parameters like ACD(,3.028±0.12 to 3.1±0.10 vs2.13 ± 0.351 to 3.22 ± 0.22), AOD (284.6±41.25 to 357.8±24.08 vs 259.8 ± 85.84 to 381.16 ± 29.27), INF TIA (34.92±6.37 to 37.04±5.48 vs 12.04 ± 1.69 to 39.88 ± 3.88) were increased in both the groups, but more in narrow angle group.ILCD (803.28 ± 144.21 to -200.68 ± 10.135 vs 1001.84 ± 160.42 to -200.4 ± 10.20) decreased in both the groups significantly. SUP TIA (30.2±6.083 to 31.92±5.93 vs10.08 ± 1.44 to 32.12 ± 5.73) increased significantly in narrow angle group. But no such difference in open angle. Finally the IT (450.4± 28.55 to 451.48 ± 29.20 vs 450.04 ± 29.91 to 451.36 ± 29.00)shows no significant changes in both the group

CONCLUSION

Uncomplicated phacoemulsification with in-the-bag PCIOL implantation significantly lowers IOP and widens the angle together with visual restoration in primary narrow angle subjects with visually significant cataract when compared to open angle subjects. Thus phacoemulsification have dual role both in visual restoration and prevents the progression of angle closure disease in narrow angle subjects.

KEYWORDS

IOP, UBM, ACD, AOD, TIA, IT, ILCD, PHACOEMULSIFICATION